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ABSTRACT

The development of the silicon chip and the microcomputer has caused the current age to be termed the "information age." Computer technology needs to be incorporated into the educational scene as computer literacy becomes a required skill. The National Labor Statistics Bureau projects that 75 percent of all jobs will require computer knowledge in the next 10 years. Effective implementation into education of instruction using microcomputers requires administrative support. Research shows a correlation between administrative support and effective introduction of computers in educational settings. With support, computers become a vital tool for learning. Administrative support takes several forms--involvement in the planning and implementation of computer instruction in the curriculum, financial support for such programs, and personnel support (release time, inservice programs, etc.), to name a few. The most effective implementors are administrators with "High Task" and "High Relationship" styles who are both people- and task-oriented. For education to move into the information age, it must use the computer as a tool for the future.)MD)

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THE COMPUTER AS A TOOL FOR THE FUTURE

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Change is a tumultuous process which is occurring throughout society. Change is being reflected in all aspects of society - in the job market, in recreational activities and in the educational scene. This change is due in part to the vast influx of knowledge. The knowledge influx has lead to the information age.

The 1800's were known as the agricultural age. The mid 1900's were known as the industrial age. The current age is known as the information age. The information age has been the result of the strides made in knowledge and in the computer's ability to quickly and efficiently store and retrieve information. The successful development of the silicon chip lead to the advancement of the micro computer. The micro computer with its versatility, cost and accessibility has made possible the entrance of education into the information age.

With the micro computer, the strides in knowledge must become incorporated into the educational scene. "If educational technology does not keep pace with the general proliferation of technology advances in our society we could easily find ourselves in a situation analogous to that of the Ancient Mariner - surrounded by something we need but are unable to utilize 'technology, technology everywhere but not a bit we can

use.'"(Allen & McCullough, 1980, p.150) This knowledge advancement must include computer literacy. In the future computer knowledge or computer literacy will be almost as important as reading skills. "In this computer age computer literacy will be as much a social obligation as reading literacy."(Winkle & Mathews, 1982, p.314) The National Labor Statistics Bureau projects that in 10 years 75% of all jobs will require interaction with the computer. For today, computer literacy may be a springboard to success. "Now computer familiarity is fast becoming the new springboard into the boardroom as on-the-rise executives attempt to turn their technophilia into an advantage over their less computer oriented colleagues. The ability to use a personal computer, these young executives reason, could be their ticket to success in the 1980's." (Carroll,1982,p.45)

The movement of the computer into the educational scene can be exhibited by the growing number of computers coming into the schools. "By January 1983, 85 percent of all high schools, 77 percent of all junior-senior combinations and 68 percent of all middle and junior high schools had one or more micros. . . . Over 57% of all schools had at least one micro." (Becker, 1983, p.41)

The second issue to be addressed must be how can the computer be implemented. Implementation to be effective is only possible with support. This support must begin and continue at the top with the administrator. Recent research has shown that administrative support is one factor which makes a significant

difference in the process of implementation. There was found to be a significant correlation between administrative support and effective implementation. In schools where the administrator supported the use of computers they were effectively implemented. In these schools, they were used for more than four hours per day for instruction. In these schools, they were used in more than one subject area and were an instructional tool. With administrative support, the computer became a vital tool for learning.

The administrative support took several forms. The administrator was involved in the planning and in the implementing of the computer into the curriculum. The administrator was involved in the financial support of the program at the outset and on a continuous basis. Support was also provided for personnel. Personnel support came in the forms of release time, in-service programs, consultations, and others. The support for the program seemed to be essential for effective implementation.

The research further showed that administrators who had a leadership style of High Task and High Relationship were more effective implementors. This style was one of the four styles of leadership identified by Hersey and Blanchard in their Tri-Dimensional Effectiveness Model. (Hersey & Blanchard, 1977, p.105) These administrators were both people and task oriented. Administrators of this type were in the "selling" stage of the leadership model. They were working with people who were unable but were willing to take responsibility but lacked the skills at

this time. (Hersey & Blanchard, 1982, p.153) This would indicate that most of today's educators are willing but lack the knowledge needed to move into the computer age. The administrator, therefore, must provide the needed impetus and support for a faculty or staff to move into the computer age.

The value of the micro computer for education can be expressed in one word - versatility. "Versatility is a key reason for putting computers into the schools. Teachers, students and administrators will continually find new ways to use computer technology." (Zucker, 1982, p.317) The computer can provide countless opportunities for improvement of services for the educational community. At the instructional level, the micro computer can be used to individualize, to inform, to simulate, to accelerate, and to remediate. At the administrative level, the micro computer can be used to prepare forms, to analyze the budget, to prepare inventories and to keep records. The possible applications for the computer are limitless.

The role and the value for computers in the educational scene is only now at the tip of an iceberg of possibilities. Education as a mirror of society must explore the possible applications of the computer. Educuation must move into the information age and this is only possible by using the computer as a tool for the future.

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